**REMARKS**

The present amendment is in response to the Office Action dated 21 September 2009, where the Examiner has restricted the present reissue application to 12 separate species.

## FORMAT FOR RESTRICTION ELECTION

37 C.F.R. § 1.173 fails to provide clear instructions on the proper format for making an election in the reissue application. MPEP §§ 1400 is similarly lacking in instructions. Accordingly, in making the required election, Applicant employed the format for election under 37 C.F.R. § 1.121. However, Applicant respectfully requests instruction from the Examiner or the Reissue specialist regarding the proper format for indicating withdrawn new claims in the present reissue.

## OBJECTIONS UNDER 1.173

### A. Objections to claim 45

The Office Action objects to claim 45 due to a typographical error.

The final paragraph of claim 45 has been amended to recite "writing a copy of said data blocks, which are targeted for said designated logical unit for mirroring and parity protection, to storage segments of said mass storage devices not within said logical unit designated for mirroring and ~~rarity~~ parity protection."

### B. Objection to the amendment of 8/9/2009

The Office Action objects to the claim amendment of 8/9/2009. Specifically, the Office Action states that "the claimed subject matter for each of the claims is not clearly mapped to the specification by page and line number, and to the drawing, if any, by reference characters."

Applicant directs the Examiner to the response filed on August 8, 2009, which includes an Appendix linking every claim to the specification by page and line number, and to the drawing, if any, by reference characters. Applicant also notes that on PAIR, the USPTO mis-labeled and mis-grouped the appendix with the material labeled "2009-08-06 Applicant summary of interview with examiner."

## RESTRICTION REQUIREMENT

The Office Action of September 21, 2009 includes a restriction requirement under 35 U.S.C. §121 which sets forth twelve distinct species:

I. A mass storage system protection utilizing parity and mirroring protection (claims 1-10).

II. A mass storage system protection utilizing user selection commands (claims 105-108,125-129,133-138, and 158-160)

III. A mass storage system protection utilizing parity generation and mirroring (claims 94-99,112-115, and 139-142).

IV. A mass storage system protection utilizing strip (claims 84-87, 109-111, 116-117,118-124, 147,152, and 161-162).

V. A mass storage system protection utilizing parity and skew (claims 23- 28, 148-150, and 163-165).

VI. A mass storage system protection utilizing mirroring (claims 11-16, 17-22, and 29-34).

VII. A mass storage system protection wherein second storage address is located in a disk drive separate from the disk drive containing the first storage address (claims 143-146 and 151).

VIII. A mass storage system protection utilizing a cache and a hot spare (claims 73-83).

IX. A mass storage system protection utilizing parity inhibit and off-line party generation (claims 37-39, 40-41, 42, 43-45, 56-59, 64-72,153, and 155-157).

X. A mass storage system protection utilizing data stored without parity (claims 60-63, 100-104, 130-132).

XI. A mass storage system protection containing other data when the first logical unit is not selected by user form mirroring (claims 88-93).

XII. A mass storage system protection utilizing storage segments of the mass storage devices not within the logical unit designated for mirroring (claims 35, 36, 46-49 and 154).

Pages 4-5 of the Office Action

## ELECTION

Applicant hereby elects species I, including claims 1-10 of the original patent, with traverse.

## TRAVERSAL

For the reasons provided hereinbelow, the Restriction Requirement is respectfully *traversed*.

> Every requirement to restrict has two aspects: (A) the reasons (as distinguished from the mere statement of conclusion) why **>each invention< as claimed *>is< either independent or distinct >from the other(s)<; and (B) the reasons >why there would be a serious burden on the examiner if restriction is not required, i.e., the reasons< for insisting upon restriction therebetween as set forth in the following sections.  MPEP § 808

While Applicant agrees that a restriction may be proper, Applicant asserts that the Examiner has failed to show that the claims represent 12 independent or distinct inventions.

Regarding (A) establishing the reasons each invention is either independent or distinct from the others:

> The particular reasons relied on by the examiner for holding that the inventions as claimed are either independent or distinct should be concisely stated. **A mere statement of conclusion is inadequate.** The reasons upon which the conclusion is based should be given. MPEP § 808.01

The Office Action of September 21, 2009 asserts that the claims are directed to 12 distinct species. However, the Office Action fails to cite any reasonable basis for any mutually exclusive characteristics between the present claims.

While the present claims may arguably be divided into 3-4 different species, the division of the claims into 12 distinct species is excessive and unsupported.

For example, the Office Action asserts the following species:

> I. A mass storage system protection utilizing parity and mirroring protection (claims 1-10).

> III. A mass storage system protection utilizing parity generation and mirroring (claims 94-99,112-115, and 139-142).

> IV. A mass storage system protection utilizing strip (claims 84-87, 109-111, 116-117,118-124, 147,152, and 161-162).

> V. A mass storage system protection utilizing parity and skew (claims 23- 28, 148-150, and 163-165).

> VI. A mass storage system protection utilizing mirroring (claims 11-16, 17-22, and 29-34).

Initially, all of the claim groups in the present application address parity. Furthermore, parity is strongly related to the use of striping. Additionally, skew refers to the offset of data blocks employed in a striping scheme, which distributes logical drives across multiple physical drives. Therefore, the presence of parity in all the above claims is strongly related to striping, even if the claims do not explicitly recite striping.

The distinction cited for species VII is: A mass storage system protection wherein the second storage address is located in a disk drive separate from the disk drive containing the first storage address. However, this species appears to be the same as species Vi since mirroring stores the copy on a separate disk drive. Therefore, species VII is clearly incorporated into the species VI.

Similarly, species VIII, directed to "[a] mass storage system protection utilizing a cache and a hot spare," describes a processor cache and a hot spare mechanism,

Procopio

which supports seamless data recovery when using mirroring as a form of data protection.

Species XII confuses the meaning of the claims. These claims do not recite "[a] mass storage system protection utilizing storage segments of the mass storage devices not within the logical unit designated for mirroring." These claims recognize that **some** logical units are **not** designated for mirroring. Therefore, in the claims, some data blocks are designated for mirrored logical units and some are not. This is similar to the description of species X and XI, which provides for both protected and unprotected logical units.

Given the above, Applicant believes the Examiner has failed to show the above 12 species to be clearly and distinctly separate species.

Regarding (B) the reasons why there would be a serious burden on the examiner if restriction is not required, the MPEP recites:

> Where the * inventions as claimed are shown to be independent or distinct … in order to establish reasons for insisting upon restriction, [the examiner] must explain why there would be a serious burden on the examiner if restriction is not required. Thus the examiner must show by appropriate explanation one of the following:
> (A)*Separate classification thereof…*
> (B)*A separate status in the art when they are classifiable together…*
> (C)*A different field of search…*
> Where, however, the classification is the same and the field of search is the same and there is no clear indication of separate future classification and field of search, **no reasons exist for dividing among independent or related inventions**.
> MPEP § 808.02 (emphasis added)

While applicant does not argue that the prosecution of 160 claims does not pose an undue burden, Applicant believes that the separation of the claims to 12 species is unjustified.

Procopio

**PROPOSED SPECIES**

Applicant does not disagree that the claims can be restricted into separate species and presents the following potential species, which Applicant believes are sufficiently distinct in nature to justify restriction.

- Potential Species I: Directed to a mass storage system that stores data in logical units based on user selected storage schemes, including claims 1-16, 17-22, 23-28, 29,-34, 35, 36, 46-49, 60-63, 84-87, 88-93, 94-99, 100-104, 105-108, 109-111, 112-115, 116-117, 118-124, 125-129, 139-142, 143-146, 147, 148-150, 151, 152, 154, 158-160, 161-162, 163-165.

- Potential Species II: Directed to inhibiting and enabling parity including claims 56-59, 64-72, 73-83, 130-132, 133-138, and 153.

- Potential Species III: Directed to Offline parity generation (with or without parity inhibition) including claims 37-45, 56-59, 64, 153, and 155-157.

Furthermore, Applicant also believes that Potential Species I could be further divided to separate claims where different logical units employ separate storage schemes, as exemplified by claims 105-108, 133-138, and 158-160.

Because the present invention would be better suited for division into 3-4 possible species and that the Examiner has not met the burden for restricting the claims into 12 separate species, Applicant requests withdrawal of the restriction requirement and consideration of the possible restriction of the claims into 3-4 possible species as set forth by Applicant above.

Procopio

## CONCLUSION

For all the foregoing reasons, early allowance of the pending claims respectfully requested.  If the Examiner believes that a telephone conversation may be useful in advancing prosecution, the Examiner is invited to contact the undersigned at the number listed below.  If necessary, applicant requests to extend the period for filing this reply pursuant to 37 CFR § 1.136(a) and authorizes the Director to charge any additional fee(s) or any underpayment of fee(s) or credit any overpayment(s) to Procopio Deposit Account No. 50-2075.

Respectfully submitted,

Dated: <u>24 February 2010</u>                    By:   <u>/Pattric J. Rawlins/</u>
                                                           Pattric J. Rawlins
                                                           Reg. No. 47,887

Procopio, Cory, Hargreaves & Savitch LLP
530 B Street, Suite 2100
San Diego, California 92101-4469
(619) 238-1900